

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) Electrical power transmission network, comprising:

~~[[[-]] interconnecting nodes; of the network and~~

connecting lines connected between [[the]] said nodes;

~~[[[-]] a coaxial superconducting cable with which is associated a first reactance, said coaxial superconducting cable being connected between two of said nodes of the said network; and~~

~~characterized in that it also comprises at least one inductive element, with which is associated a second reactance, said at least one inductive element being connected in series with [[the]] said coaxial superconducting cable.~~

2. (currently amended) Network according to Claim 1, ~~characterized in that wherein~~ the sum of [[the]] said first reactance and [[the]] said second reactance is substantially equal to a third reactance whose value is substantially equal to the reactance of a conventional cable suitable for such a connection.

3. (currently amended) Network according to Claim 1, ~~characterized in that the wherein~~ said at least one inductive element comprises a superconducting cable.

4. (currently amended) Network according to Claim 1, ~~characterized in that the wherein~~ said at least one inductive element comprises a core.

5. (currently amended) Network according to Claim 1, ~~characterized in that the wherein~~ said at least one inductive element is located at one end of [[the]] said coaxial superconducting cable.

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6. (currently amended) Network according to Claim 1, characterized in that the wherein said at least one inductance inductive element comprises two parts, of which one is located at one end of [[the]] said superconducting cable and the other is located at the opposite end thereof.

7. (currently amended) Network according to Claim 1, characterized in that the wherein said coaxial superconducting cable is of the multiple phase type has multiple phases.

8. (currently amended) Network according to Claim 7, characterized in that it wherein the network comprises at least one inductive element connected in series with each phase of [[the]] said coaxial superconducting cable.

9. (currently amended) Network according to Claim 1, characterized in that the wherein said coaxial superconducting cable comprises a support of conducting material.

10. (currently amended) Network according to Claim 1, characterized in that the wherein said coaxial superconducting cable comprises a support of composite material.

11. (withdrawn - currently amended) Method for installing in an electrical power transmission system a connection using a coaxial superconducting cable, characterized in that it comprises the following steps comprising:

[[[-]]] determining [[the]] a reactance of a conventional cable suitable for [[the]] said connection;

[[[-]]] installing [[the]] said coaxial superconducting cable having a predetermined reactance; and

[[-]]] increasing the reactance of [[the]] said coaxial superconducting cable, in such a way that [[the]] said reactance of [[the]] said superconducting cable is substantially equal to the reactance of [[the]] said conventional cable.

12. (withdrawn - currently amended) Method according to Claim 11, characterized in that wherein the step of increasing the reactance of [[the]] said coaxial superconducting cable comprises [[the]] a step of connecting an inductive element in series with [[the]] said coaxial superconducting cable.

13. (withdrawn - currently amended) Method according to Claim 12, characterized in that the wherein said inductive element is a superconductor.

14. (withdrawn - currently amended) Method according to Claim 11, characterized in that it comprises the further comprising a step of associating with [[the]] said coaxial superconducting cable a parallel conducting path in such a way that [[the]] a maximum temperature reached by [[the]] said coaxial superconducting cable is lower than [[the]] a minimum temperature between [[the]] a critical temperature of the superconducting material and [[the]] a boiling point of the coolant fluid at [[the]] a minimum working pressure of the fluid.

15. (withdrawn - currently amended) Method for replacing, in an electrical power transmission system, a conventional cable connection with a coaxial superconducting cable connection, comprising the following steps:

[[-]]] removing [[the]] said conventional cable;
[[-]]] installing [[the]] said coaxial superconducting cable; and characterized in that it additionally comprises the step of increasing [[the]] a reactance of [[the]] said coaxial superconducting cable.

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16. (withdrawn - currently amended) Method according to Claim 15,
~~characterized in that it additionally comprises the step of further comprising:~~
[[[-]]] determining [[the]] a reactance of [[the]] said conventional cable; and
[[[-]]] increasing the reactance of [[the]] said coaxial superconducting cable in such
a way that the reactance of [[the]] said coaxial superconducting cable is substantially
equal to the reactance of [[the]] said conventional cable.
17. (withdrawn - currently amended) Method according to Claim 15,
~~characterized in that wherein~~ the step of increasing the reactance of [[the]] said coaxial
superconducting cable comprises [[the]] a step of connecting an inductive element in
series with [[the]] said coaxial superconducting cable.
18. (withdrawn - currently amended) Method according to Claim 17,
~~characterized in that the wherein~~ said inductive element comprises superconductors.
19. (withdrawn - currently amended) Method according to Claim 15,
~~characterized in that it comprises the further comprising~~ a step of associating with [[the]]
said coaxial superconducting cable a parallel conducting path in such a way that [[the]]
a maximum temperature reached by [[the]] said coaxial superconducting cable is lower
than [[the]] a minimum temperature between [[the]] a critical temperature of the
superconducting material and [[the]] a boiling point of the coolant fluid at [[the]] a
minimum working pressure of the fluid.
20. (withdrawn - currently amended) Thermally insulated terminal for
connection between a multiple-phase cable and an electrical installation at ambient
temperature, [[the]] said cable comprising, for each phase, at least one coaxial unit
having a phase superconductor, an interposed layer of electrical insulation and a

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coaxial return superconductor, and [[also]] thermal control means for maintaining [[the]] said superconductors of each of [[the]] said coaxial units in [[the]] a superconducting state, [[the]] wherein said terminal being characterized in that it comprises an inductive element connected in series with each phase superconductor.

21. (withdrawn - currently amended) Terminal according to Claim 20, characterized in that it comprises further comprising:

[[[-]]] at least one casing,

[[[-]]] cooling means, and

[[[-]]] a live current lead for each phase superconductor, having a corresponding phase connector for connection to [[the]] said installation at an ambient temperature,

[[the]] said current lead being provided with a resistive conductor between the phase superconductor and [[the]] said connector of the current lead, [[the]] areas of connection between [[the]] said resistive conductors and [[the]] said phase superconductors being located inside the casing.

22. (withdrawn - currently amended) Terminal according to Claim 20, characterized in that it comprises further comprising:

[[[-]]] a single return current lead provided with a single resistive return conductor, with an upper end connected to a return connector for connection to the installation at the ambient temperature; and

[[[-]]] connecting means made from a superconducting material between [[the]] said return superconductors and [[the]] said single resistive return conductor,

[[the]] an area of [[the]] a junction between [[the]] said connecting means being made from a superconducting material and [[the]] said single resistive return conductor,

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and at least [[the]] said connecting means between the return superconductors and [[the]] said single resistive conductor[,] being inside the casing and being at a temperature below [[the]] a critical temperature corresponding to [[the]] a superconducting state owing to the presence of ~~the~~ said a cooling means.

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